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SUBARU USERS MEETING ON  
MARCH 2, 2021

# FULL REMOTE OBSERVATION PROJECT

- UNMANNED SUMMIT OBSERVATION -

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**Kentaro Aoki**

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# FULL REMOTE OBSERVATION

Subaru Telescope aims to start full remote observation.  
The main goals are

- Nobody at the summit during night observation.
- Operation from Hilo facility.
- Observers at Mitaka, Hilo or somewhere.

But currently we are in its planning phase.

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# PURPOSE/GAINS

- Reduce physical burden, risk, & work load of night staffs.
  - Save operation costs by reducing Hale Pohaku lodging & summit traffic.
  - Higher obs. success rate by fixing problems.
  - Better management/communications through this observatory-wide project.
  - Keep redirecting activities of night operators and scientific staff may be important for sustainable future operation of Subaru Telescope.
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# ORGANIZATION

*Director*

*Steering committee*  
*(Takami, Kambe, Pyo, & Aoki)*

oversight, budget, HR

***Project office***  
*leader: Aoki*  
*core members*  
*&*  
*extended members*

*Telescope*

*Tech. Develop*

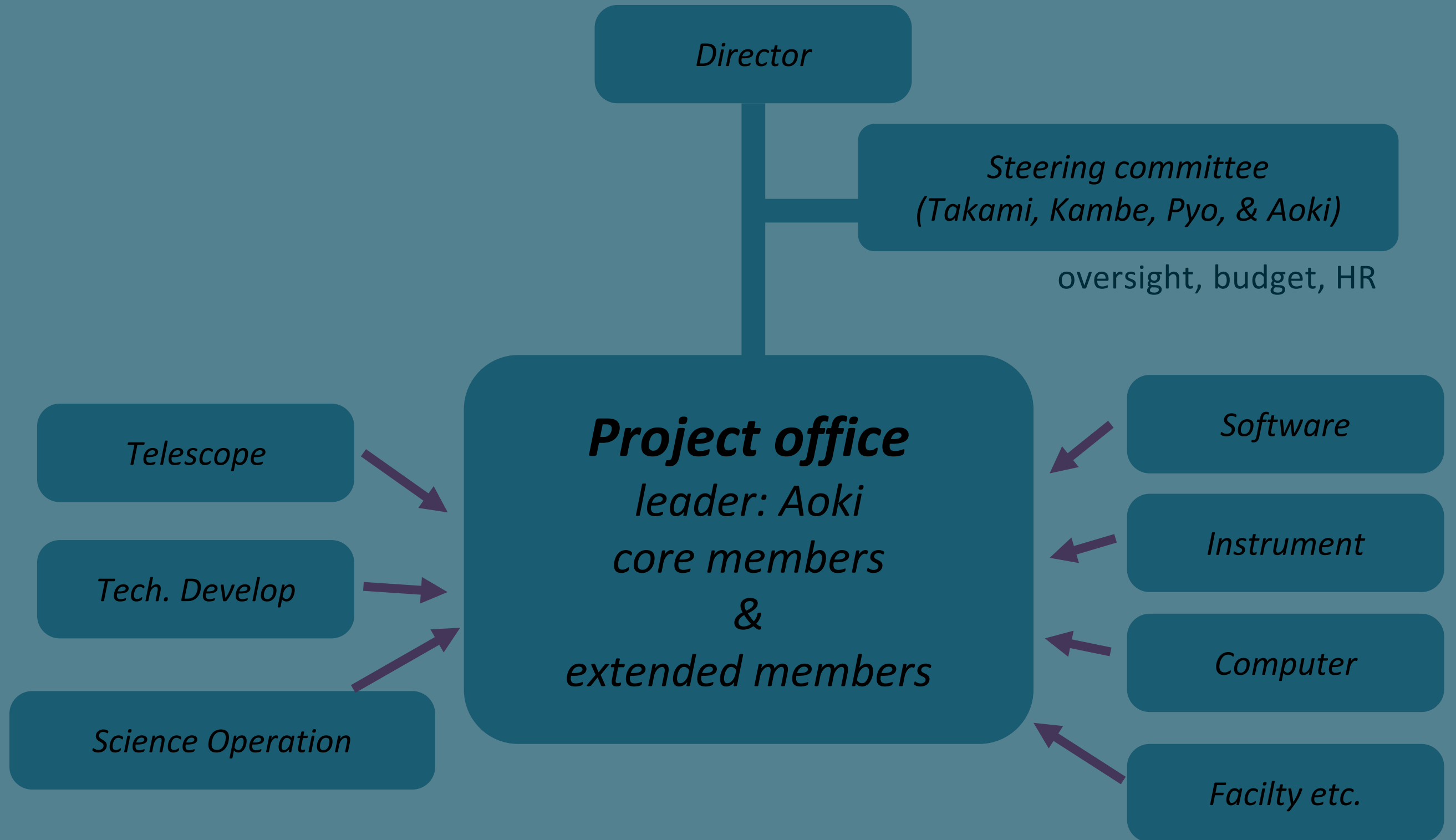
*Science Operation*

*Software*

*Instrument*

*Computer*

*Facilty etc.*



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# PROJECT OFFICE

青木さん

藤吉さん

田中  
(壺)  
さん

高木さん

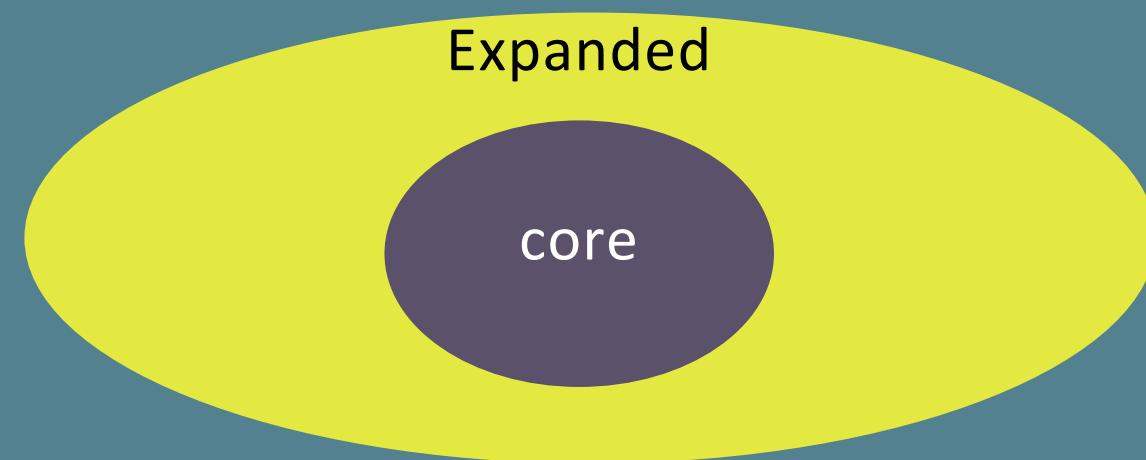
Various divisions (Telescope, Science operation, Computer, Software etc. ) need to closely coordinate. The project office will work to manage them.

## ➤ Core members

- Aoki (Lead), Fujiyoshi, Tanaka, I. & Takagi
- Attend all meetings.

## ➤ Expanded members

- Attend meetings for directly related topics.
- Division chief and/or someone recommended by the chives.



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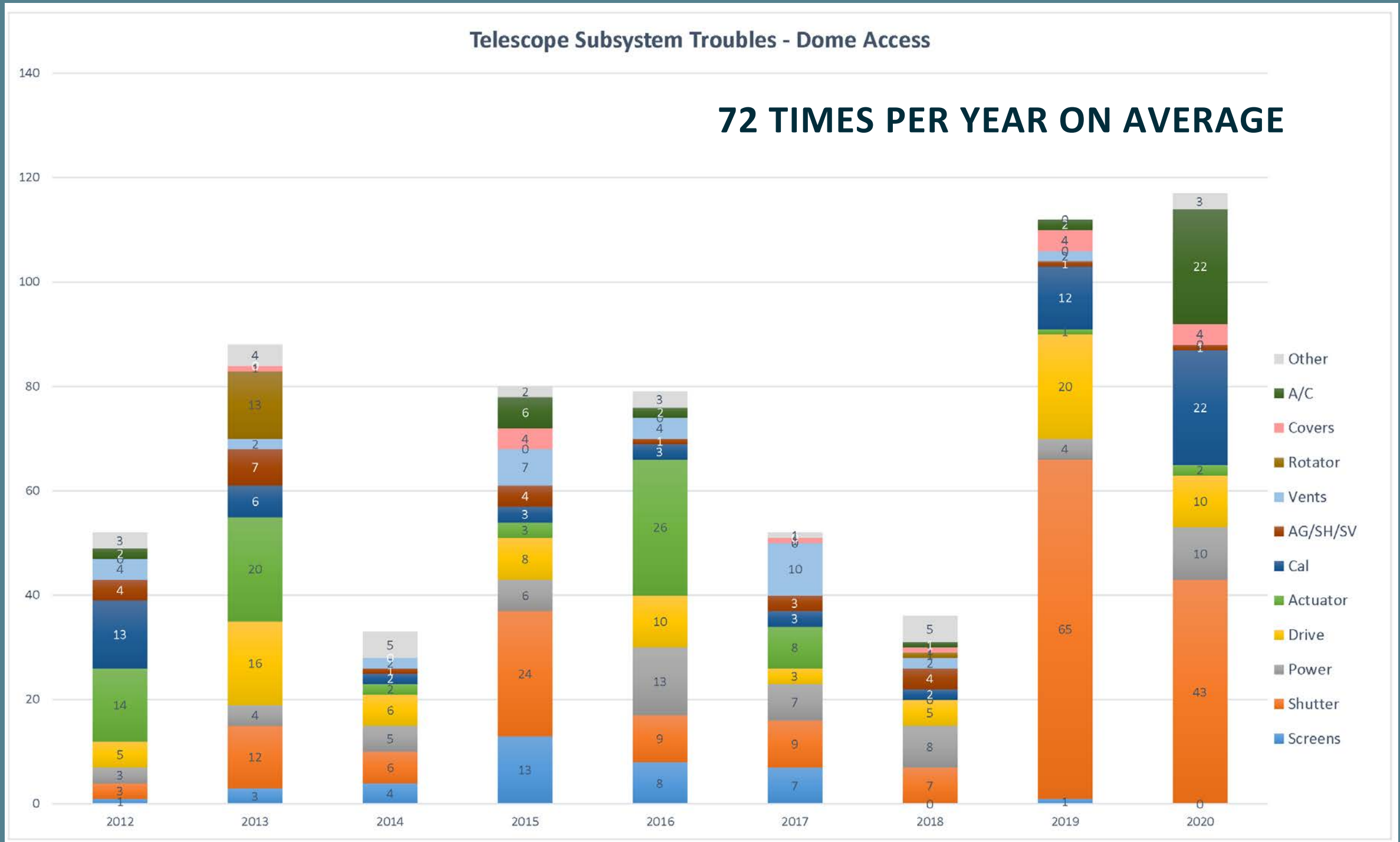
MEMBERS ARE TBD

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# PROJECT PROCESS IN PLANNING PHASE (TBD)

1. List up all items solved before full remote obs. Especially by Science Op. & Telescope Op. divs.
2. Discussed by whole divisions, and more itemize.
3. Plan timeline & conditions for the items, level of "full remote".

# TELESCOPE SUBSYSTEM TROUBLES REQUIRING DOME ACCESS



FOR 2018-2020, 115 MAIN SHUTTER, 17 CHILLER, 35 DRIVE , 25 A/C, 36 CALIBRATION SOURCE, AND OTHER TROUBLES

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# OTHER ACTIVITIES

- Discussion on implementing remote operation function in Local Control Unit (core of our telescope drive system) of telescope.
- fog monitor (the similar system to CFHT) and monitoring cameras.
- Lodging (Pyo-san's presentation)
- Learn predecessors' experiences/advices.

**THANK YOU FOR YOUR UNDERSTANDING,  
COOPERATION AND SUPPORTS!**

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